

CLAIMS

We claim:

- Claim 1. An addressable system for light fixtures, comprising:
- at least one track control module, said track control module having a lamp, an infrared receiver, a visual light receiving sensor, a visual programming indicating interface, and control module electronics electrically connected to said lamp, said infrared receiver and visual light receiving sensor;
- a remote control unit having an infrared transmitter and a visual light transmitter, said remote control unit operable to communicate with said at least one track control module;
- a track repeater module in electrical communication with said at least one track control module;
- wherein said at least one track control module may be individually selected for programming by said remote control unit through said visual light transmitter and said visual light receiving sensor.
- Claim 2. The addressable system for light fixtures of claim 1 wherein said at least one track control module is communicably connected to said remote control unit through said infrared transmitter using said infrared receiver on said track control module.
- Claim 3. The addressable system for light fixtures of claim 1 further comprising a plurality of electrical light fixture tracks in electrical communication with each other.
- Claim 4. The addressable system for light fixtures of claim 3 wherein said control module electronics is electrically connected to said lamp, said infrared receiver and said

visual light receiving sensor further comprises storage memory capable of storing a plurality of lamp brightness settings for said lamp on said track control module.

- Claim 5. The addressable system for light fixtures of claim 4 wherein said track repeater module further a carrier comprises a line signal transmitter for communicating signals received from said remote control through said electrical tracks.
- Claim 6. The addressable system for light fixtures of claim 4 wherein said at least one track control module further has a microprocessor and instructions stored thereon for:
- allowing said at least one track control module to be selected for programming by said remote control through said visual light receiving sensor;
 - programming said at least one track control module using said remote control to store said plurality of lamp brightness settings in said storage memory;
 - associating said plurality of lamp brightness levels in said memory with unique memory identifiers.
- Claim 7. The addressable system for light fixtures of claim 6 wherein said track repeater module has electronics and instructions stored thereon, said instructions including:
- identifying a programming signal from said remote control;
 - programming a functional effect for at least one track control module using said track repeater module;
 - storing commands from said remote control representative of said functional effect on said track repeater module;
 - transmitting said commands for said functional effect to said at least one track control module through an electrical connection between said track repeater module and said at least one track control module.

- Claim 8. The addressable system for light fixtures of claim 4 wherein said at least one track control module is a plurality of track control modules in electrical communication with said track repeater module, said track repeater module and said plurality of track control modules having electronics and instructions located thereon for:
- placing each of said plurality of track control modules in programming mode;
- setting simultaneously a lamp brightness level for each lamp on each of said plurality of track control modules through said track repeater module;
- programming said lamp brightness level in said storage memory of each of said plurality of track control modules;
- Claim 9. The addressable system for light fixtures of claim 8 wherein said setting simultaneously a brightness level for each lamp on each of said plurality of track control modules includes transmitting commands to each of said plurality of track control modules through said electrical communication indicative of said lamp brightness level.
- Claim 10. An addressable system for light fixtures, comprising:
- a plurality of control modules, each of said control modules in electrical communication with a lamp and having a visual light receiving sensor, a command receiving sensor, a visual programming indicating interface and storage memory;
- a remote control having a visual light transmitter operable with said visual light receiving sensor of said plurality of control modules and a command transmitter operable with said command receiving sensor of said plurality of control modules;

wherein each of said plurality of control modules may be visually selected by said remote control allowing said storage memory in each of said plurality of control modules to store lamp control data.

Claim 11. The system of claim 10 wherein said plurality of control modules may be programmed for said storage of lamp control data individually and as a user selected group by said visual light transmitter of said remote control.

Claim 12. The system of claim 11 further comprising a repeater module in electrical communication with said plurality of control modules, said repeater module having a visual light receiving sensor, a command receiving sensor and visual programming indicator.

Claim 13. The system of claim 12 wherein said plurality of control modules, remote control and said repeater module further comprise electronics and instructions for:

labeling each of said plurality of control modules with a predefined address definition;

communicating simultaneously through said electrical communication lamp control data commands to said plurality of control modules having said predefined address definition through said repeater module;

setting said lamp using said remote control for all of said plurality of control modules by addressing said repeater module;

storing said lamp control data in said storage memory of each of said plurality of control modules having said predefined address definition when commanded by said repeater module.

- Claim 14. The system of claim 13 wherein each of said control modules in electrical communication with said repeater module having said predefined address definition may be visually selected and unselected for said setting of said lamp using said visual light transmitter on said remote control.
- Claim 15. A system for addressing light fixtures, comprising:
- a plurality of control modules, each of said control modules having a lamp, memory, a microprocessor, a laser light sensor and an infrared sensor;
 - a remote control having a laser light emitter and an infrared transmitter;
 - wherein for each of said plurality of control modules, said microprocessor is connected to said memory and is operative to:
 - receive addressing instructions from said remote control to address each of said control modules with a predefined address;
 - activate programming of said memory by selection of said control module using said laser light emitter on said remote control;
 - adjust said lamp to a desired lamp brightness setting;
 - store lamp brightness data representative of said lamp brightness setting in said memory on command from said remote control;
 - associate said lamp brightness data in said memory with a predefined identifier.
- Claim 16. The system for addressing light fixtures of claim 15 further comprising a repeater module in electrical communication with said plurality of control modules, said repeater module having a laser light sensor and an infrared sensor, a microprocessor, memory storage, and a command able to transmit electronic commands through said electrical communication to said plurality of said control modules.

Claim 17. The system for addressing light fixtures of claim 16 wherein said microprocessor and memory storage on each of said repeater modules is operative to:

- receive said laser light from said remote control;
- transmit said electronic commands in response to being selected by said laser light on said remote control to each of said plurality of control modules;
- simultaneously adjust said lamp brightness settings on said lamps for each of said plurality of control modules in response to said commands to said repeater module;
- activate programming of said memory on each of said plurality of control modules in response to said commands to said repeater module from said remote control;
- store said lamp brightness data settings in said memory in response to said commands to said repeater module from said remote control in each of said plurality of control modules;
- associate said lamp brightness data in said memory of each of said plurality of control modules having said predefined address.

Claim 18. A light fixture addressing system, comprising:

- a remote control having a visible laser transmitter and a command transmitter;
- a plurality of lamp control modules, each of said modules having a light sensor, a command input sensor, a microprocessor operably connected to said light sensor and said command input sensor, storage memory and a lamp, each of said plurality of lamp control modules in electrical connection to a power supply source, each of said lamp control modules having instructions for said microprocessor operable to:
- allow each of said lamp control modules to be selected into a programming mode by said remote control by passing said laser transmitter over said light sensor;

adjust the brightness of said lamp by sending commands through said command transmitter of said remote control to said command input sensor;
store a lamp brightness value representative of said lamp brightness of said lamp for each of said lamp control modules into one of a plurality of storage memory locations in said lamp control module.

Claim 19. The light fixture addressing system of claim 18 wherein said microprocessor on each of said plurality of lamp control modules is further operable to:
recall each of said plurality of lamp brightness values from said storage memory locations by receiving a command from said remote control unit, said command including a storage memory location identifier.

Claim 20. The light fixture addressing system of claim 19 wherein each of said lamp control modules has a plurality of storage memory location identifiers for storing lamp brightness values in said plurality of storage memory.

Claim 21. The light fixture addressing system of claim 18 further comprising a repeater module in electrical communication with said plurality of lamp control modules, said repeater module having a light sensor, a command input sensor, a microprocessor and memory, said repeater module having instructions in said memory executing on said microprocessor operative to:
allow said repeater module to be selected for programming by said light sensor being in visual communication with said light source of said remote control;
activate said plurality of lamp control modules into said programming mode through said electrical communication;

modify brightness of said lamps on said plurality of lamp control modules through said electrical communication;

store said lamp brightness value of said lamps for each of said lamp control module into one of a plurality of storage memory in each individual lamp control module.

Claim 22. The light fixture addressing system of claim 21 wherein said repeater module and each of said lamp control modules has an address identifier stored in said storage memory, said repeater module electrically communicable with said lamp control modules having the same address identifier.

Claim 23. The light fixture addressing system of claim 22 wherein said address identifier stored in said repeater module and said plurality of lamp control modules may be modified.